CLAIMS

1. An organic electroluminescent device, comprising:

organic compound thin film layers including a luminescent layer, the organic compound thin film layers being formed between a pair of electrodes;

a hole-transporting layer disposed between the luminescent layer and an anode; and

an electron-transporting layer disposed between the luminescent layer and a cathode,

the organic electroluminescent device having no hole-blocking layer between the electron-transporting layer and the luminescent layer,

the organic electroluminescent device being characterized in that the luminescent layer contains a compound represented by the following general formula (I) as a host material and an organometal complex containing at least one metal selected from the group consisting of ruthenium, rhodium, palladium, silver, rhenium, osmium, iridium, platinum, and gold as a guest material:

$$R_3$$
 R_4
 R_4
 R_5
 R_8
 R_6
 R_7
 R_8

(I)

where R_1 to R_8 each independently represent hydrogen atom, alkyl group, aralkyl group, alkenyl group, cyano group, amino group, amide group, lkoxycarbonyl group, carboxyl group, alkoxy group, or aromatic group which may have a substituent, and Z represents a hydrocarbon group which may have a substituent, aromatic heterocyclic group, triarylsilyl group, or group represented by the following formula (II):

$$R_{10}$$
 R_{11}
 R_{12}
 R_{16}
 R_{15}
 R_{14}
 R_{14}
 R_{15}
 R_{14}
 R_{15}
 R_{14}
 R_{15}
 R_{14}

where R₉ to R₁₆ each independently represent hydrogen atom, alkyl group, aralkyl group, alkenyl group, cyano group, amino group, amide group, alkoxycarbonyl group, carboxyl group, alkoxy group, or aromatic group which may have a substituent.

2. An organic electroluminescent device according to claim 1, characterized in that the luminescent layer contains a compound represented by the following general formula (III) as a host material:

$$R_3$$
 R_4
 R_5
 R_8
 R_8
 R_{10}
 R_{11}
 R_{12}
 R_{16}
 R_{15}
 R_{14}
 R_{14}
 R_{15}
 R_{14}
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 R_{15}
 R_{16}
 R_{17}
 R_{18}
 R_{18}
 R_{19}
 R_{19}
 R_{11}
 R_{11}
 R_{12}
 R_{13}
 R_{14}
 R_{15}
 R_{14}
 R_{15}
 R_{14}

where R_1 to R_{16} each have the same meaning as that of each of the formulae (I) and (II).

3. An organic electroluminescent device according to claim 1 or 2, wherein the guest material comprises tris(2-phenylpyridine)iridium complex capable of emitting green phosphorescence.